



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/826,357 | 06/14/2000 | Ralf Haferbeck | P00,1277 | 3957 |
| 7590 | 09/30/2005 | | EXAMINER | |
| Kevin R Spivak Morrison & Foerster LLP 2000 Pennsylvania Avenue NW Washington, DC 20006-1888 | | | | TSEGAYE, SABA |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2662 | |

DATE MAILED: 09/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|------------------------|---------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 09/826,357 | HAFERBECK ET AL. |
| | Examiner | Art Unit |
| | Saba Tsegaye | 2662 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 21 July 2005.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-4 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-4 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

Response to Amendment

1. This Office Action is in response to the amendment filed 7/21/05. Claims 1-4 are pending. Currently no claims are in condition for allowance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the phrase "capable of " renders the claim indefinite because it is unclear whether the ATM cells according to the number of ATM connections are processed, thereby rendering the scope of the claim(s) unascertainable.

Claim Rejections - 35 USC § 103

4. Claims 1, 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dempo (6,594,267), hereafter referred to as Dempo in view of Okabe et al. (US 6,031,838), hereafter referred to as Okabe.

Referring to claim 1, Dempo discloses ATM switching equipment (a variable length packet interchange, hereafter referred to as the "interchange" (see item 1 figure 1)) comprising a

switching network (the interchange comprises a network (see figure 4)) an input interface unit including an input processing unit (the interchange comprises a plurality of interfaces (see item 10 in figure 4)), an output interface unit including an output processing unit (the interchange comprises output interfaces (see item 27 in Figure 4)), a microprocessor (the interchange has an associated CPU (see item 4 in figure 1)), a server switching unit (the interchange comprises a selector (see item 11 in figure 4)) comprising an AAL2 switcher that is connected to the switching network via a first interface (the selector has a selector section connected to the rest of the interchange (note, the entire system in Dempo involves processing AAL2 cells) (see item 11a in figure 6)), an input processing unit to which said AAL2 switcher is connected (the selector has a buffer control section (see items BCl-BC8 in figure 6)), and an output processing unit to which said AAL2 switcher is connected (a CPS-PDU transmission section (see item 11b in figure 6)), said switching equipment being configured to write a new VPI/VCI information for a further connecting section into cells of arriving data streams upon utilization of routing tables (the interchange performs header conversion of the VCI and VPI values using a routing table (see item 22 in figure 4, items 4 and 5 in figure 1, figure 5 and column 1 lines 45-67)), said AAL2 switcher being configured for simultaneous processing of a maximum plurality of incoming connections (the selector section has a plurality of inputs that make up a plurality of connections thus it is performing simultaneous processing of those connections (see figure 6)), an AAL2 routing list being provided for each of said incoming connections (there is a routing list associated for each incoming ATM connection depending on the associated VPI and VCI of the connections (see item 22 in figure 4, items 4 and 5 in figure 1, figure 5 and column 1 lines 45-67)) and said microprocessor being configured to limit an allowable value range for VPI/VCI

values in a header of ATM cells according to a plurality of said AAL2 routing lists, so that said first interface considers corresponding VPV/VCI coding bits (inherently, the number of bits that represent the VPI and VCI values is limited to a certain number as described by the ATM standard used by Dempo, therefore there is only a range of values that the VPI and VCI can possibly be (see figure 5).

Dempo does not expressly disclose a microprocessor that limits the number of bits representing VPI/VCI bits from among VPI/VCI bits transmitted in a header of ATM cells that are to be interpreted.

Okabe teaches an ATM switching system connected to a switching network without requiring recognition of all VPI/VCI bits. As shown in Fig. 1, a first address converter 22 for converting a VPI/VCI included in the header of a cell to a cell address having a number of bits smaller than the number of bits of the VPI/VCI (column 6, lines 16-41; column 17, lines 33-44).

It would have been obvious to one of ordinary skill in art at the time the invention was made to modify Dempo's apparatus to utilize a system where the CPU also has the capability to limit the number of bits representing VPI/VCI bits, as taught by Okabe. The motivation is more integrated and efficient system that will reduce the amount of hardware for various tables and processing circuits, thereby reducing cost.

Referring to claim 3, Dempo discloses the system discussed above. Furthermore, Dempo discloses a single virtual path is established between said switching network and said server switching unit (the selector is part of the interchange network as shown in figure 4 and since

multiple paths through the network exist a single path also exists (i.e. there are numerous single virtual paths between the selector and switching network in Dempo).

Referring to claim 4, Dempo discloses the system discussed above. Furthermore, Dempo discloses buffer memories, which are allocated to said routing lists (a buffer storing a table is allocated to routing header information (see item 5 in figure 1 and figure 2 and 5)), a section of an AAL2 packet of an ATM cell being writeable into said buffer memories (the table is dynamic and thus it can be updated according to the VCI and VPI values of the incoming ATM headers (see item 5 in figure 1 and figure 2 and 5)), and said section being readable from said buffer memories when processing a next-successive ATM cell (the processing done using the routing table is continuous therefore the next incoming cell will also be processed by reading the table and writing the corresponding header values (see item 5 in figure 1 and figure 2 and 5)) and for completion of a remainder of said AAL2 packet (inherently, the current cell being processed will be completed with its associated header so that it can be forwarded on to the destination (see item 5 in figure 1 and figure 2 and 5).

Referring to claim 2, Dempo in view of Okabe discloses the system discussed above. Dempo in view of Okabe does not disclose that the first interface is a UTOPIA interface. However, the present application points out on page 5 lines 15-17 that UTOPIA is a standardized protocol that is well proven for connecting AAL2 switchers to switching networks. For these reasons it would have been obvious to one skilled in the art at the time of the invention to implement this feature in the system of Dempo in view of Okabe.

Response to Arguments

5. Applicant's arguments with respect to claims 1-4 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saba Tsegaye whose telephone number is (571) 272-3091. The examiner can normally be reached on Monday-Friday (7:30-5:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ST
September 20, 2005



JOHN PEZZLO
PRIMARY EXAMINER